

REMARKS

The Applicant has received and reviewed the Office Action dated August 2, 2007 wherein the Office rejected Applicant's claims 1, 2, 4, 5, 13, 14, 19, 20, 22, 23, and 30 under 35 U.S.C. 102(b) as being anticipated by the newly cited reference of Lizama et al (US Patent No. 5,458,752) and Applicant's claims 8-12, 16, 17, 24-26 and 32 under 35 U.S.C. 103(a) as being unpatentable over the combination of the references of Lizama et al and Bayley et al (British Patent 1,443,704). The Office however indicated that Applicant's claims 3, 6, 15, 28-29, 33, and 34 contains allowable subject matter

Examiner's interview of August 21, 2007

Applicant's attorneys Carl L. Johnson and Thomas N. Phung thank Examiner Drodge for the courtesy and time in granting the telephone interview on August 21, 2007 to discuss the claims and the cited art. During the interview, the Office proposed that the term "acid catalyzed" be insert after the term "unwanted" and before the term "liquid" in the first clauses of each of the independent claims. It was agreed that the proposed amendment would better distinguish the subject matter being claimed over the cited art. The Office noted that the aforementioned amendment necessitated the filing of an RCE application.

In response to the Office's aforementioned comments, the Applicant has enclosed an executed PTO/SB/30 transmittal form for the filing of a Request for Continued Examination of the above-identified application under 37 C.F.R. 1.114 along with a credit card authorization form in the amount of \$790.00 in payment of the filing fee for the Request for Continued

Examination with the present response. Please charge any additional fees that may be due to Deposit Account 10-0210.

Rejection under 35 U.S.C. 102(b) to Lizama et al.

Applicant's claims 1, 2, 4, 5, 13, 14, 19, 20, 22, 23, and 30 stand rejected under 35 U.S.C.

102(b) as being anticipated by the reference of Lizama et al (US Patent No. 5,458,752). The

Applicant respectfully submits that Applicant's claims 1, 2, 4, 5, 13, 14, 19, 20, 22, 23, and 30 are allowable over the reference of Lizama et al. for the following reasons.

In regards to Applicant's independent claim 1, per the Office's suggestion during the

Examiner's interview of August 21, 2007, the Applicant has amended independent claim 1 to now call for a process for the extraction of an unwanted acid catalyzed liquid from a fluid that includes the steps of:

“...introducing an immiscible extraction liquid into a fluid having an unwanted acid catalyzed liquid therein by mixing, pressurizing, or agitating to form a physical emulsion to form a plurality of extraction liquid droplets under 10 micron in diameter suspended in the fluid;

allowing the plurality of extraction liquid droplets to form a polar interaction with the unwanted acid catalyzed liquid in the fluid to cause the extraction liquid droplets to form into a plurality of microdispersed droplets containing the unwanted acid catalyzed liquid;

capturing the microdispersed droplets;

coalescing the microdispersed droplets into larger droplets containing the unwanted acid catalyzed liquid;

controlling a volume of the immiscible extraction liquid introduced into the fluid such that there is a specific gravity difference of as low as 0.01 between the larger droplets containing the unwanted acid catalyzed liquid and the fluid; and

separating the larger droplets containing the unwanted acid catalyzed liquid from the fluid.” (Emphasis added.)

Support for the above amendments to independent claim 1 can be found for example on page 2, lines 12-21 and page 4, lines 1-14 of the Applicant's disclosure. The Applicant respectfully submits that the reference of Lizama et al. does not teach the above steps of Applicant's amended independent claim 1 as a review of the reference of Lizama et al. reveals that Lizama et al. does not teach the steps involved in the removal of an unwanted acid catalyzed liquid from a fluid as called for in Applicant amended independent claim 1. It is for the above reason and per the Office's statements during the Examiner's interview of August 21, 2007 that the Applicant submits that Applicant's independent claim 1 is allowable over the reference of Lizama et al.

In regards to Applicant's independent claim 13, the Applicant has canceled dependent claim 15, which the Office stated on page 5, lines 12-20 of the Office Action dated August 2, 2007 as containing allowable subject matter, and amended independent claim 13 to include the subject matter of canceled dependent claim 15 to place independent claim 13 in a condition for allowance. Applicant's independent claim 13, as amended, now calls for a process for the extraction of an acid from a fluid that includes the steps of:

“...introducing a volume of polar liquid into a silicone fluid containing an acid;

mixing, pressurizing, or agitating to form a stable physical emulsion to form a plurality of polar liquid droplets under 10 micron in diameter dispersed through out the silicone fluid, said polar liquid droplets attractable to the acid in the silicone fluid through a polar interaction to form a plurality of polar liquid acid droplets;

capturing the polar liquid acid droplets;

coalescing the polar liquid acid droplets into a plurality of larger droplets containing the acid;

controlling an amount of water added to the silicone fluid such that there is a specific gravity difference of as low as 0.01 between the plurality of larger droplets containing the acid and the silicone fluid; and

separating the larger droplets from the silicone fluid to thereby remove the acid from the silicone fluid.” (Emphasis added.)

The Applicant respectfully submits that Applicant’s independent claim 13, as amended above, is now in a condition for allowance.

In regards to Applicant’s independent claim 30, Applicant’s independent claim 30 calls for a process for the extraction of an unwanted liquid from a fluid that includes the step of:

“...introducing an immiscible extraction liquid into a fluid having an unwanted liquid therein by mixing, pressurizing, or agitating to form a physical emulsion to form a plurality of extraction liquid droplets under 10 micron in diameter suspended in the fluid;... (Emphasis added.)

The Applicant respectfully submits that the reference of Lizama et al. does not teach the above step of Applicant’s independent claim 30. The reference of Lizama et al. instead teaches the use of an “electrical field” to “... atomize and disperse the aqueous phase into the organic phase.” (See column 4, lines 39-41, and lines 53-63 of Lizama et al.) It is respectfully submitted that Lizama et al.’s use of an “electrical field” is different from the Applicant’s step of mechanically dispersing (such as by mixing, pressurizing, or agitating) the volume of polar liquid or the immiscible extraction liquid to form a stable physical emulsion as the Applicant’s aforementioned steps comprises a non-electrical method of dispersal of a liquid in forming a stable physical emulsion.

In further regards to Applicant’s independent claim 30, Applicant’s independent claims 30 calls for a process for the extraction of an unwanted liquid from a fluid that includes the step of:

“...controlling an amount of immiscible extraction liquid introduced into the fluid such that there is a specific gravity difference of as low as 0.01 between the larger droplets and the fluid;...”(Emphasis added.)

The Applicant respectfully submits that the reference of Lizama et al does not teach the feature of providing a specific gravity difference of as low as 0.01 between the larger droplets and the fluid as called for in Applicant's independent claim 30. Note that although the reference of Lizama et al. in column 5, lines 32-41 teaches a difference in the specific gravity between Lizama et al.'s aqueous phase and Lizama et al.'s organic phase, Lizama et al does not teach a specific gravity difference of as low as 0.01 between Lizama et al.'s aqueous phase and Lizama et al.'s organic phase.

It is for the above reasons that the Applicant respectfully submits that Applicant's independent claims 1 and 13, as amended, and Applicant's independent claim 30 are allowable over the reference of Lizama et al. and are in a condition for allowance.

**Rejection under 35 U.S.C. 103(a) to combination
of the references of Lizama et al. and Bayley et al**

Applicant's claims 8-12, 16, 17, 24-26 and 32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of the references of Lizama et al (US Patent No. 5,458,752) in view of Bayley et al (British Patent 1,443,704). In regards to Applicant's dependent claims 8-12, Applicant's dependent claims 8-12, by way of independent claim 1, have been amended to now each call for a process for the extraction of an unwanted acid catalyzed liquid from a fluid that include the steps of:

“...introducing an immiscible extraction liquid into a fluid having an unwanted acid catalyzed liquid therein by mixing, pressurizing, or agitating to form a physical emulsion to form a plurality of extraction liquid droplets under 10 micron in diameter suspended in the fluid;

allowing the plurality of extraction liquid droplets to form a polar interaction with the unwanted acid catalyzed liquid in the fluid to cause the extraction liquid droplets to form into a plurality of microdispersed droplets containing the unwanted acid catalyzed liquid;

capturing the microdispersed droplets;

coalescing the microdispersed droplets into larger droplets containing the unwanted acid catalyzed liquid;

controlling a volume of the immiscible extraction liquid introduced into the fluid such that there is a specific gravity difference of as low as 0.01 between the larger droplets containing the unwanted acid catalyzed liquid and the fluid; and

separating the larger droplets containing the unwanted acid catalyzed liquid from the fluid.” (Emphasis added.)

The Applicant respectfully submits that the combination of the references of Lizama et al. and Bayley et al does not teach the above steps of Applicant’s amended dependent claims 8-12 as a review of the references Lizama et al. and Bayley et al. reveal that Lizama et al. and Bayley et al. both do not teach the steps involved in the removal of an unwanted acid catalyzed liquid from the fluid as called for in Applicant’s amended dependent claims 8-12. Note for example that the references Lizama et al. and Bayley et al. each do not teach the step of

“...introducing an immiscible extraction liquid into a fluid having an unwanted acid catalyzed liquid therein by mixing, pressurizing, or agitating to form a physical emulsion ...” or the step of “... allowing the plurality of extraction liquid droplets to form a polar interaction with the unwanted acid catalyzed liquid in the fluid to cause the extraction liquid droplets to form into a plurality of coalesceable droplets containing the unwanted acid catalyzed liquid;...” as called for in Applicant’s amended dependent claims 8-12. (Emphasis added.) Since the references Lizama et al. and Bayley et al. each do not teach the aforementioned steps of

respectfully submits that their combination also does not teach above steps of Applicant's amended dependent claims 8-12.

It is for the above reason that the Applicant submits that Applicant's amended dependent claims 8-12 are allowable over the combination of the references of Lizama et al. and Bayley et al.

In regards to Applicant's dependent claims 16, 17, and 24-26, Applicant's dependent claims 16, 17 and 24-26, by way of independent claim 13, have been amended to each include the subject matter of now canceled dependent claim 15. Since the Office on page 5, lines 12-20 of the Office Action dated August 2, 2007 stated that canceled dependent claim 15 contains allowable subject matter, it is respectfully submitted that Applicant's dependent claims 16, 17 and 24-26, as amended, are now in a condition for allowance.

In further regards to Applicant's claim 32, Applicant's dependent claims 32, by way of independent claim 30, calls for a process for the extraction of an unwanted liquid from a fluid that includes the step of:

“...controlling an amount of immiscible extraction liquid introduced into the fluid such that there is a specific gravity difference of as low as 0.01 between the larger droplets and the fluid;...”(Emphasis added.)

The Applicant respectfully submits that the combination of the references of Lizama et al. and Bayley et al. does not teach the feature of providing a specific gravity difference of as low as 0.01 between the larger droplets and the fluid as called for in Applicant's dependent claim 32.

More specifically, in regards to the reference of Lizama et al., it is noted that although the reference of Lizama et al. in column 5, lines 32-41 teaches a difference in the specific gravity between Lizama et al.'s aqueous phase and Lizama et al.'s organic phase, Lizama et al does not teach a specific gravity difference of as low as 0.01 between Lizama et al.'s aqueous phase and Lizama et al.'s organic phase. In regards to the reference of Bayley et al., it is submitted that a review of the reference of Bayley et al failed to reveal the teaching of a specific gravity difference of as low as 0.01 between the larger droplets and the fluid as called for in Applicant's dependent claim 32.

In view of the above, since the references of Lizama et al. and Bayley et al. each do not teach the feature of providing a specific gravity difference of as low as 0.01 between the larger droplets and the fluid as called for in Applicant's dependent claim 32, the Applicant respectfully submits that the combination of the references of Lizama et al. and Bayley et al. also does not teach the aforementioned feature of Applicant's dependent claim 32.

It is for the above reasons that the Applicant respectfully submits that Applicant's dependent claims 8-12, 16, 17, 24-26 and 32 are allowable over the combination of the references of Lizama et al. and Bayley et al.

In further regards to Applicant's claims 2-6, 8, 9-12, 14, 16-17, 27, 29, and 32, Applicant's dependent claims 2-6, 8 and 9-12 each depends on Applicant's independent claim 1 and Applicant's dependent claim 14, 16-17, 19-20, and 22-27 each depends on Applicant's independent claim 13. Since Applicant's independent claim 1 and Applicant's independent

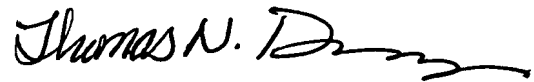
claim 13, as amended, are allowable for the reasons given above, Applicant's dependent claims 2-6, 8-12 and 14, 16-17, 19-20, and 22-27 should also be allowable. Applicant's dependent claim 32 depends on Applicant's independent claim 30. Since Applicant's independent claim 30 is allowable for the reasons given above, Applicant's dependent claim 32 should also be allowable.

In view of the above, it is submitted that the application is in condition for allowance. Allowance of claims 1-6, 8-14, 16, 17, 19-20, 22-30, and 32-34, as amended, is respectfully requested. Applicant has enclosed a version of the amendment showing changes made with this response.

Respectfully submitted,

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By



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